



October 7, 2004

TO: Eric Kuhn, Board of Directors, CRWCD

FROM: Dave Kanzer

SUBJECT: *North Fork of the Gunnison River Water Supply Study Update*

1. Future Projects Study Update

The River District staff through the Enterprise continues to work cooperatively with the local North Fork and Grand Mesa water users and their appointed steering committee members to address long-term water supply issues. In 2004, we have been continuing to focus on developing new water supplies, especially those that may meet the growing demand for augmentation and industrial water in the North Fork Basin. At present the identified priorities for future projects in the North Fork Basin are:

- A. **Storage of additional water in the Overland Reservoir:** The site-specific probable maximum precipitation (PMP) study has been completed, peer reviewed, and the results are encouraging. Although there is still significant effort required before more water may be legally stored in the Overland Reservoir, preliminary indications are that at least 600 AF of additional water could be stored in the reservoir provided that approximately \$750k of improvements are made to the spillway and auxiliary dam. It is anticipated that the report finalizing the probable maximum flood (PMF) that would result from the PMP; and a more refined cost estimate of the required improvements to store additional water will be completed in 2005.
- B. **Development of new storage facilities in the North Fork sub-basins of Leroux Creek, West Muddy Creek, and possibly Anthracite Creek:** Several areas still hold some promise and local interest for additional storage potential. In particular, three sites are being discussed and evaluated for both economic and engineering pre-feasibility in the North Fork Basin. At two locations, the Electric Mountain Reservoir site(s) on West Muddy Creek and

the reservoir site on lower Leroux Creek, indications are that although there may be some feasible opportunities to develop new sources of water, economic justification may still be lacking. That is, unless the value of water increases dramatically due to a.) existing basin water supplies become unavailable (e.g., Paonia Reservoir due to sedimentation), b.) growing demands for industrial water (coal mining operations) and/or c.) growing demands for augmentation water due to the potential for a year round call from Redlands Power and Water.

The third water storage site is located on Anthracite Creek which drains into the North Fork of the Gunnison River immediately below Paonia Reservoir (see attached map). This site has some decent conditional decrees (first fill 50,000 acre-feet, refill 20,000 acre-feet, 1968 priority date) and good water availability. It is owned by Arch Coal, Inc which operates the West Elk Mine and is locally based in Somerset, Colorado. Some private investigations have been completed on this site by this coal company but concerns about the geological setting and local land ownership issues may pose a significant problem. The North Fork Water Conservancy District has voted to support further investigation of this reservoir site and may request assistance from the River District and the USBR.

C. Enhancing existing storage supplies in the Surface Creek drainage basin

A new group is forming in the Surface Creek Basin that is made up of local municipalities, water providers, and local governments to examine options for: 1.) importation of additional water; 2.) increasing local water storage, 3.) development of additional water delivery components, and 4.) development Hydro-Electric power. More than likely this group will supplant the River District-led steering committee effort for this sub-basin.

2. Basinwide Augmentation Planning

Recent developments in the Gunnison Basin, including 1). critical designation of the Redlands Water and Power Canal which requires augmentation for all new appropriations in the Gunnison Basin and 2.) the assignment of a new local water commissioner who has identified many out-of-compliance structures that may require between 25-100 acre-feet of augmentation water (mostly domestic users of springs and wells which are subject to both local and Redlands calls) have conspired to make basin augmentation planning an even higher priority.

Besides the Overland Ditch and Reservoir Company which just approved entering into its first augmentation water contract, there is little or no augmentation water available for purchase or lease within the North Fork Basin.

The good news is that most domestic users in the basin can be protected from a Redlands call by using contract water from the Aspinall Unit and/or Ridgway Reservoir. Currently these users have to purchase individual water service contracts from the USBR. The steering committee will be investigating options for a basin-wide augmentation plan using a single USBR contract for local domestic users. This is similar to the approach used by the Upper Gunnison River Water Conservancy District (UGRWCD), in fact, it is hoped that discussions with the UGRWCD may lead to an expansion of their existing augmentation plan to cover the North Fork Basin in the future.